

Application Number 10/620,896
Amendment in Response to Office Action mailed June 17, 2005

REMARKS

This Amendment is responsive to the Office Action dated June 17, 2005. In this Amendment, Applicant has amended claims 1, 11, 18, 19, 23, 29, 35, 38, 40, 46, 51, 58, and 64. In some cases, the amendments are made to correct antecedent or grammatical errors. In other cases, the amendments are made to more appropriately define the invention. All amendments are made without prejudice to the submission of additional claims similar to the original claims in any continuation applications. Claims 1-68 remain pending.

Allowable Subject Matter

In the Office Action, claims 1-17, 23-28, 52-57, and 64-68 were indicated to be allowable in their present form. Claims 19-22, 30-33, 35-37, 41-44, 46-48, 51, and 59-62 were objected to, but indicated to be allowable if rewritten in independent form.

Claim Rejection Under 35 U.S.C. § 103

Claim 18 was rejected under 35 U.S.C. 103(a) as being unpatentable over Wolkstein (U.S. 5,287,543). Claims 29, 34, 38, 39, 40, 45, 49, 50, 58, and 63 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wolkstein in view of Steel et al. (U.S. 6,782,244).

Claim 18

Applicant respectfully traverses the rejection of independent claim 18. Wolkstein fails to disclose or suggest a power amplifier/antenna module comprising a first amplifier to amplify a voice call for transmission over a first output branch, a second amplifier to amplify a data call for transmission over a second output branch, a radio frequency antenna for a wireless interface associated with a mobile wireless communication device, and a coupler circuit to combine the first and second output branches for transmission over the antenna, as set forth in independent claim 18.

As recognized in the Office Action, Wolkstein makes no mention of the transmission of a voice call and a data call over first and second output branches that are combined with one another. Moreover, Wolkstein provides no teaching that would have suggested modification to include such a feature. The Office Action acknowledged that there is no such teaching within

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Wolkstein. The Office Action concluded, however, that such a modification would have been obvious in order to transmit voice and data calls simultaneously. Yet, Wolkstein fails to address the desirability of simultaneous transmission of voice and data calls. Therefore, the rejection of claim 18 should be withdrawn.

Notwithstanding the differences between the Wolkstein reference and the invention defined by claim 18, Applicant has amended claims to even more clearly distinguish the claimed invention, and thereby expedite prosecution toward immediate allowance of the present application. In particular, amended claim 18 now further recites a switch that couples a phase-shifted version of the voice call to the second amplifier when required transmit power for the voice call exceeds a threshold. Wolkstein lacks any teaching that would have suggested such a feature. There is no mention of the use of a phase-shifted version of a voice call in Wolkstein, nor the coupling of a phase shifted version of a voice call to a second amplifier when required transmit voice call exceeds a threshold. Therefore, amended claim 18 is in condition for immediate allowance.

Claims 29, 34, 38 and 39

Applicant respectfully traverses the rejection of independent claim 29 and dependent claims 34, 38 and 39. Neither Wolkstein nor Steel et al. provides any teaching that would have suggested a method comprising transmitting a voice call via a first output branch, transmitting a data call via a second output branch, combining the first and second output branches for transmission over a wireless interface associated with a mobile wireless communication device, and transmitting the voice call via both the first and second output branches when required transmit power for the voice call exceeds a threshold, as set forth in independent claim 29.

As recognized in the Office Action, Wolkstein makes no mention of the transmission of a voice call and a data call over first and second output branches that are combined with one another. Moreover, neither Wolkstein nor Steel et al. provides any teaching that would have suggested modification to include such a feature. In his analysis, the Office Action characterized Wolkstein as disclosing output branches that have the capability of switching in response to power requirements, citing the Wolkstein Abstract. This characterization of Wolkstein is incorrect. In the Abstract, Wolkstein describes the use of amplifiers to boost signal levels and

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the switching of amplifiers into particular channels. However, Wolkstein does not suggest transmission of a voice call via first and second output branches when required transmit power for the voice call exceeds a threshold, as required by independent claim 29.

The Office Action cited Steel et al., however, as providing such a teaching. In particular, the Office Action stated that Steel et al. "teaches . . . enabling a second branch to transmit the same call and then combining [sic] the signal when the required transmit power for the call exceeds a threshold." This characterization of Steel is incorrect. Steel et al. does not describe first and second output branches to transmit a voice call and a data call, respectively. Steel et al. makes no mention of such features. Rather, Steel et al. describes a multi-stage amplifier with selectable amplifier stages to produce a single output branch.

There is no mention of the use of parallel amplifier stages as separate output branches in Steel et al. All amplifier stages described by Steel et al. appear to be coupled to the same input signal. Consequently, there is no teaching in Steel et al. that would have suggested modification of the Wolkstein system to include first and second output branches for transmission of voice and data calls, respectively, much less provide transmission of the voice calls via both branches when required transmit power for the voice call exceeds a threshold, as required by independent claim 29.

Notwithstanding the shortcomings in the Wolkstein and Steel et al. references, relative to the requirements of independent claim 29 and dependent claims 34, 38 and 39, Applicant has amended the claims to even more clearly distinguish the claimed invention, and thereby expedite prosecution toward immediate allowance of the present application. In particular, amended claim 29 now further recites decoupling the data call from the second output branch when required transmit power for the voice call exceeds a threshold. Wolkstein and Steel et al. clearly lack any teaching that would have suggested such a feature. There is no mention of the coupling or decoupling of a data call to output branches in the Wolkstein or Steel et al. systems, much less the decoupling of a data call when required transmit power for a voice call exceeds a threshold. Therefore, amended claim 29 and dependent claims 34, 38 and 39 are in condition for immediate allowance.

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Claims 40, 45, 49, 50, 58 and 63

Applicant respectfully traverses the rejection of independent claim 40 and dependent claims 45, 49 and 50. Neither Wolkstein nor Steel et al. provides any teaching that would have suggested a mobile wireless communication device comprising a first output branch for transmission of a voice call, a second output branch for transmission of a data call, a coupler circuit to combine the first and second output branches for transmission over a wireless interface associated with a mobile wireless communication device, and a power control unit to direct transmission of the voice call via both the first and second output branches when required transmit power for the voice call exceeds a threshold, as set forth in claim 40.

Similarly, with respect to claims independent 58 and dependent claim 63, the Wolkstein and Steel et al. references fail to disclose or suggest a wireless communication device comprising means for transmitting a voice call via a first output branch, means for transmitting a data call via a second output branch, means for combining the first and second output branches for transmission over a wireless interface associated with a mobile wireless communication device, and means for transmitting the voice call via both the first and second output branches when required transmit power for the voice call exceeds a threshold.

The Office Action acknowledged that Wolkstein makes no mention of the transmission of a voice call and a data call over first and second output branches that are combined with one another. Neither Wolkstein nor Steel et al. provides any teaching that would have suggested modification to include such a feature.

The Office Action characterized Wolkstein as disclosing output branches that have the capability of switching in response to power requirements, citing the Wolkstein Abstract. As mentioned above, however, this characterization of Wolkstein is incorrect. In the Abstract, Wolkstein describes the use of amplifiers to boost signal levels and the switching of amplifiers into particular channels. Wolkstein does not suggest transmission of a voice call via first and second output branches when required transmit power for the voice call exceeds a threshold, as required by independent claim 40 and independent claim 58.

The Office Action cited Steel et al., however, as providing such a teaching. In particular, the Office Action stated that Steel et al. "teaches the use of power control unit, element number 180, in figure 2 enabling a second branch to transmit the same call and then combining [sic] the

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signal when the required transmit power for the call exceeds a threshold." Again, this characterization of Steel is incorrect. Steel et al. does not describe first and second output branches to transmit a voice call and a data call, respectively. Steel et al. makes no mention of such features. In FIG. 2, Steel et al. does not show two different output branches. Instead, Steel et al. shows a transmitter 110 and a receiver 140.

Steel et al. describes a multi-stage amplifier with selectable amplifier stages to produce a single output branch. There is no mention of the use of parallel amplifier stages as separate output branches in Steel et al. Indeed, all amplifier stages described by Steel et al. appear to be coupled to the same input signal. Consequently, there is no teaching in Steel et al. that would have suggested modification of the Wolkstein system to include first and second output branches for transmission of voice and data calls, respectively, much less provide transmission of the voice calls via both branches when required transmit power for the voice call exceeds a threshold, as required by independent claims 40 and 58.

Notwithstanding the shortcomings in the Wolkstein and Steel et al. references, relative to the requirements of independent claims 40 and 58, as well as dependent claims 45, 49, 50, and 63, Applicant has amended claims to even more clearly distinguish the claimed invention, and thereby expedite prosecution toward immediate allowance of the present application. In particular, amended claim 40 now further specifies that the power control unit directs decoupling of the data call from the second output branch when required transmit power for the voice call exceeds a threshold. Similarly, claim 58 further recites means for decoupling the data call from the second output branch when required transmit power for the voice call exceeds a threshold. Wolkstein and Steel et al. clearly lack any teaching that would have suggested such features. There is no mention of the coupling or decoupling of a data call to output branches in the Wolkstein or Steel et al. systems, much less the decoupling of a data call when required transmit power for a voice call exceeds a threshold. Therefore, claims 40 and 58, and dependent claims 45, 49 and 50, are in condition for immediate allowance.

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CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims.

To the extent any claim limitations or alleged prior art teachings have not be address herein, Applicant does not acquiesce in the propriety of any characterization or position established by the Examiner with respect to such limitations or teachings. Rather, Applicant reserves further comment in light of clear distinction of the claimed invention from the applied prior art, as discussed in the foregoing remarks.

Please charge any additional fees or credit any overpayment to deposit account number 17-0026. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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